



Slide 1. The following presentation includes demonstrations of two released testlets for mathematics.

Slide 2. Both demonstrated testlets assess a high school Essential Element for Number and Quantity – The Complex Number System, which states, “Solve real-world problems involving addition and subtraction of decimals, using models when needed.” However, each testlet will assess a different linkage level for this Essential Element.

This Essential Element is within Major Claim 1 for mathematics, which is, “Students demonstrate increasingly complex understanding of number sense,” and the conceptual area M.C1.3, which states, “Calculate accurately and efficiently using simple arithmetic operations.”

Slide 3. Every Essential Element for mathematics includes five linkage levels. The linkage levels help make the academic content accessible to the wide range of students who participate in the assessment. From least to most complex, the linkage levels are Initial Precursor, Distal Precursor, Proximal Precursor, Target, and Successor. However, a single mathematics testlet assesses only one linkage level.

Slide 4. The first demonstrated testlet assesses the Initial Precursor linkage level skills “recognize separateness” and “recognize set.” The items in the testlet assess those two skills only.

Slide 5. As a reminder, before attempting to administer a testlet with a student in Kite<sup>®</sup> Student Portal, the testlet’s corresponding Testlet Information Page, commonly referred to as a TIP, should be accessed in Kite Educator Portal because Testlet Information Pages provide important preparatory information.

The Testlet Information Page for the following released testlet indicates the testlet will assess the Essential Element at the Initial Precursor linkage level, will be teacher-administered, and will have five items.

The materials needed to administer this testlet include 5 erasers, 5 pencils, and 1 rubber band. The materials will be used for the student to recognize set and separateness. However, if those materials are not readily available or suitable for the student, suggested substitutions include 2 sets of 5 or more objects that can be bundled, stacked, or grouped, such as 7 cups. A piece of string can be used in place of the rubber band for bundling.

Calculator use is not applicable for this testlet.

The mathematics vocabulary used in this testlet are “together” and “set,” and the test administrator should not define the words “separate” or “group” for the student.

Slide 6. Having considered the Testlet Information Page for this released testlet, the testlet will now be demonstrated.

For the purpose of this demonstration, each screen will be read as it appears. Remember, since this testlet is teacher-administered, the educator directions and items are written for the test administrator.

The testlet will be shown without any accessibility supports. Only correct response options will be chosen.

Slide 7. Choose **BEGIN** to start.

Slide 8. Educator Directions:

In this testlet you will present the student with objects in a set and objects separate from the set. It is important that separate objects are clearly separated, and objects in sets are clearly in a group (such as stacked, connected, touching, etc.). The student will recognize set and separateness.

Gather:

- 5 erasers
- 5 pencils
- 1 rubber band (or piece of string)

You may substitute other objects if required.

For items 1 and 2, you will use the erasers. For items 3 and 4, you will use the pencils. For item 5, you will use the erasers and pencils.

**NEXT**

Slide 9. Educator Directions:

Present the five erasers to the student in a way that captures the student’s attention. For example:

- Draw the student’s attention to the presence of the erasers. Allow the student time to explore the objects.
- Show the student how to erase a pencil mark with an eraser.

Once the student has attended to the erasers, bundle three erasers together with a rubber band or string and leave the remaining erasers separate from the group.

**NEXT**

Slide 10. Educator Directions:

SHOW: the bundled erasers.

SAY: “Here are some erasers.”

SHOW: the erasers separate from the bundled erasers.

SAY: “Here are some more erasers.”

SHOW: all of the erasers.

SAY: “Show me the erasers separate from the group.”

**NEXT**

Slide 11. Record student response:

- Indicates the erasers separate from the group
- Indicates the group of bundled erasers
- Indicates or interacts with the materials in some other way
- Attends to other stimuli
- No response

Slide 12. Indicates the erasers separate from the group.

**NEXT**

Slide 13. Educator Directions:

SHOW: the bundled erasers.

SAY: "Here are some erasers."

SHOW: the erasers separate from the bundled erasers.

SAY: "Here are some more erasers."

SHOW: all of the erasers.

SAY: "Show me the group of erasers."

**NEXT**

Slide 14. Record student response:

- Indicates the group of bundled erasers
- Indicates the erasers separate from the group
- Indicates or interacts with the materials in some other way
- Attends to other stimuli
- No response

Slide 15. Indicates the group of bundled erasers.

**NEXT**

Slide 16. Educator Directions:

Place the erasers out of sight or immediate reach of the student. Present the five pencils to the student in a way that captures the student's attention. For example:

- Draw the student's attention to the presence of the pencils. Allow the student time to explore the objects.
- Show the student how to write with a pencil.

Once the student has attended to the pencils, bundle three pencils together with a rubber band or string and leave the remaining pencils separate from the group.

On the next screens, you will ask the student some questions about the pencils.

**NEXT**

Slide 17. Educator Directions:

SHOW: the bundled pencils.

SAY: "Here are some pencils."

SHOW: the pencils separate from the bundled pencils.

SAY: "Here are some more pencils."

SHOW: all of the pencils.

SAY: "Show me the group of pencils."

**NEXT**

Slide 18. Record student response:

- Indicates the group of bundled pencils
- Indicates the pencils separate from the group
- Indicates or interacts with the materials in some other way
- Attends to other stimuli
- No response

Slide 19. Indicates the group of bundled pencils.

**NEXT**

Slide 20. Educator Directions:

SHOW: the bundled pencils.

SAY: "Here are some pencils."

SHOW: the pencils separate from the bundled pencils.

SAY: "Here are some more pencils."

SHOW: all of the pencils.

SAY: "Show me the pencils separate from the group."

## NEXT

Slide 21. Record student response:

- Indicates the pencils separate from the group
- Indicates the group of bundled pencils
- Indicates or interacts with the materials in some other way
- Attends to other stimuli
- No response

Slide 22. Indicates the pencils separate from the group.

## NEXT

Slide 23. Educator Directions:

Present the five pencils and five erasers to the student in a way that captures the student's attention. For example:

- Draw the student's attention to the presence of the pencils and erasers. Allow the student time to explore the objects.
- Show the student how to write with a pencil.
- Show the student how to erase pencil marks with an eraser.

Once the student has attended to the pencils and erasers, bundle three erasers and three pencils together with a rubber band or string and leave two pencils and two erasers separate from the group.

On the next screen, you will ask the student a question about the pencils and erasers.

## NEXT

Slide 24. Educator Directions:

SHOW: the pencils and erasers separate from the bundled pencils and erasers.

SAY: "Here are some pencils and erasers."

SHOW: the bundled pencils and erasers.

SAY: "Here are some more pencils and erasers."

SHOW: all of the pencils and erasers.

SAY: "Show me the pencils and erasers separate from the group."

**NEXT**

Slide 25. Record student response:

- Indicates the pencils and erasers separate from the group
- Indicates the group of bundled pencils and erasers
- Indicates or interacts with the materials in some other way
- Attends to other stimuli
- No response

Slide 26. Indicates the pencils and erasers separate from the group.

**NEXT**

Slide 27. Since this is a teacher-administered testlet, this review screen is an opportunity for the test administrator to ensure responses for all items in the testlet have been recorded. For computer-delivered testlets, the same screen appears to give the student the opportunity to go back and answer any items left unanswered.

**END**

Slide 28. Are you sure you want to end?

**YES**

Slide 29. The demonstration for the first testlet in this presentation is now complete.

Slide 30. The second demonstrated testlet assesses the same Essential Element as the first but at the Target linkage level, which is specific to the skills "Solve word problems involving addition with rational numbers," and "Solve word problems involving subtraction with rational numbers."

Slide 31. As mentioned previously, before administering a testlet with a student in Kite Student Portal, the testlet's corresponding Testlet Information Page should be accessed in Kite Educator Portal because it contains important preparatory information.

The Testlet Information Page for the following released testlet indicates the testlet will assess the Essential Element at the Target linkage level, will be computer-delivered, and will have three items. However, no materials will be needed.

The Testlet Information Page states that use of a calculator is allowed.

The mathematics vocabulary used in the testlet includes "word problems," "addition," "subtraction," and "decimal."

The Testlet Information Page does not include any other information about accessibility supports NOT allowed or any comments.

Slide 32. However, alternate text for testlet images are provided on subsequent pages of the Testlet Information Page for students who receive the human read aloud support and require verbal descriptions of the images in addition to the text. Directions for the test administrator are provided. This testlet's engagement activity includes a picture of a boy in a ticket stand. On the engagement activity screen, the test administrator would read the alternate text "a boy in a ticket stand" exactly as written. No other pictures are used in this testlet.

Slide 33. Having considered the Testlet Information Page for this released testlet, the testlet will now be demonstrated.

For the purpose of the demonstration, each screen will be read as it appears. The testlet will be shown without any accessibility supports. Only correct response options will be chosen.

Slide 34. After the **BEGIN** screen, a short engagement activity will appear. The engagement activity serves to provide a context for the items in the testlet, activate the student's prior knowledge, and engage the student.

Slide 35. Choose **BEGIN** to start.

Slide 36. Jay works at a snack stand. Jay adds change together. Jay remembers that  $\$0.10 + \$0.10 = \$0.20$ .

**NEXT**

Slide 37. Jay counts \$1.00. Jay then counts \$0.25. What is the total amount Jay counts?

- \$0.75
- \$1.25
- \$1.75

Slide 38. \$1.25

**NEXT**

Slide 39. Jay counts \$0.85. Jay then counts \$0.27. What is the total amount Jay counts?

- \$0.92
- \$1.02
- \$1.12

Slide 40. \$1.12

**NEXT**

Slide 41. Jay counts \$1.99. Jay then counts \$1.76. What is the total amount that Jay counts?

- \$3.65
- \$3.75
- \$3.76

Slide 42. \$3.75

**NEXT**

Slide 43. Are you done? Red boxes mean you are not done. Ask your teacher for help. Blue dots mean you are done. You can choose end.

**END**

Slide 44. Are you sure you want to end?

**YES**

Slide 45. The demonstration for the second testlet in this presentation is now complete.

Slide 46. Shown here is the mini-map for M.EE.HS.N.CN.2.b.

Again, the first demonstrated testlet assessed the Initial Precursor skills, which are “recognize set” and “recognize separateness.” All items in that first demonstrated testlet asked the student to show the items that were grouped or bundled or to show the items that were separated.

The second demonstrated testlet assessed the Target linkage level. The testlet could have assessed “solve word problems involving addition with rational numbers” or “solve word problems involving subtraction with rational numbers.” However, all items in the demonstrated testlet were addition problems.

The purpose of the mini-map is to show all the skills connected to an Essential Element and the multiple pathways of learning students may take from one skill to another. The skills increase in complexity moving down the mini-map, and the arrows, or connections, indicate the pathways from skill to skill. Mini-maps are important instructional resources because they help teachers understand a student’s current skill level related to the Essential Element and identify skills the student could be taught to help the student move further along the map.

Please note: each skill, or node, is boxed on the mini-map. Inside each box is a two-letter code that indicates the linkage level of the skill. IP stands for Initial Precursor, DP stands for Distal Precursor, PP stands for Proximal Precursor, T stands for Target, and S stands for Successor. Notice that some boxes have the letters UN. UN is used to indicate skills that are untested but may be necessary for a student to learn in order to continue further along the mini-map. Also, the letter-number codes in the boxes are simply markers for where the skills are located on the full learning map model.

Feel free to pause the video and consider the pathways of instruction that could be plotted to help a student currently at the Initial Precursor linkage level achieve the Target linkage level.

Slide 47. Sometimes the connection from the least complex linkage levels to the more complex linkage levels is not readily apparent. The mini-maps PDFs found within the Currently Tested Essential Elements for Mathematics on the DLM website provide additional insight to this relationship. For example, in terms of the M.EE.HS.N.CN.2.b Initial Precursor skills, "Adding and subtracting rational numbers requires a student to be able to recognize that two or more sets or groups of items exist. Work on this skill using a variety of sets. Help students recognize when items are grouped together into a set or separated out. The educator presents a set, labels it (such as two balls, one marker, three CDs), counts the items, labels it again, and encourages students to use numerals to label and count the separate sets."

Slide 48. Hopefully, this presentation provided further insight to the look and feel of testlets as well as the way linkage levels for Essential Elements shape testlets.